

# CHEEF Pilot Program Update

Board Meeting, July 18, 2017



CALIFORNIA HUB FOR  
ENERGY EFFICIENCY  
FINANCING



# Why financing pilots?

California Legislature has set ambitious climate change mitigation goals:

- AB 32 (2006) required state to **reduce its GHG emissions** to 1990 levels by 2020.
- AB 758 (2009) recognized the need for California to address climate change through **reduced energy consumption in existing buildings** (residential, commercial, and public).
- AB 802 (2015) authorized energy efficiency programs to **bring existing buildings up to current code** and creates a building energy-use benchmarking and disclosure.
- SB 350 (2015) required doubling of the state's **energy efficiency savings by 2030**.
- SB 32 (2016) required the state to **reduce GHG emissions 40% below 1990 levels by 2030**.

**\$50 Billion** | **Needed to retrofit CA's existing buildings\***  
Ratepayer and taxpayer \$ are insufficient

**California will only achieve its building energy reduction goals through leveraging private capital**

*\*Harcourt Brown and Carey, "Energy Efficiency Financing in California Needs and Gaps Preliminary Assessment and Recommendations." July 8, 2011.*



# CPUC Decision 13.09.044 outlines two main sets of goals for financing pilots

*“developing **scalable** and **leveraged** financing products to stimulate **deeper EE projects** than previously achieved through traditional program approaches (e.g., audits, rebates, and information)”*

*“test whether transitional ratepayer support for Credit Enhancements can lead to **self-supporting EE finance programs** in the future”*

- Deeper projects
- More projects
- Scalable products
- Expanded access to financing
- Leveraged financing products

- Attractive financing without credit enhancement support

# CHEEF Pilot Program Comparison

	<b>REEL (Residential)</b>	<b>Affordable Multi-Family</b>	<b>Small Business</b>	<b>Large Commercial</b>
<b>Products</b>	Loans, RICs Up to \$50,000	Loans, leases & ESAs any size*	Loans, leases & ESAs Up to \$2.5MM*	Loans, leases, ESAs Up to \$5MM
<b>Repayment and disconnection</b>	Off-Bill	On or Off-Bill No disconnection	On or Off-Bill Possible disconnection	On-Bill Possible disconnection
<b>Credit Enhancement initial authorization</b>	Loan Loss Reserve Up to \$25MM	Loan Loss Reserve Up to \$2.9MM	Loan Loss Reserve Up to \$14MM	None
<b>Project requirements</b>	70% EE or DR	70% EE, or Solar Hot Water	70% EE or DR	70% EE, DR, or DG
<b>Borrowers</b>	Homeowners or renters, 1-4 units	For-profit or non- profit owners of properties with at least 50% income restricted units	SBA size small businesses and non-profits	Any size business or non-profit; government and public entities

\* Only first \$1MM in financing will receive a credit enhancement

EE = Energy Efficiency DR=Demand Response DG =Distributed Generation



# March, 2017 CPUC Decision provided CAEATFA with some authority to modify aspects of pilot design

## Key CPUC Regulatory Actions regarding pilots:

- D.13.09.044 (Sept, 2013) “Financing Decision”: Calls for CAEATFA to set up the CHEEF, Authorizes the pilots through December, 2015 with \$65.9MM for the pilots and \$9.3MM in reserves.
- D. 15.06.008 (June, 2015) : Approves some of CAEATFA’s requested modifications; allows all pilots to run for a full two year period.
- D. 15.12.002: (Dec, 2015) Approves some of CAEATFA’s requested modifications; allows inclusion of energy service agreements (ESAs)
- November 22, 2016 AC and ALJ Ruling: Releases \$8.36MM in reserve funding to CAEATFA to continue CHEEF operations through FY 19-20
- D. 17.03.026 (March, 2017) : Provides CAEATFA with clarified authority to modify pilot program design, commits Commission to long term funding support of the pilot programs including loan servicing for the life of enrolled loans



# CHEEF

## CALIFORNIA HUB FOR ENERGY EFFICIENCY FINANCING

### Technical Consultants



California  
Public Utilities  
Commission

### Master Servicer

# CONCORD

Power. Performance. Personalization.

### Investor Owned Utilities



### Trustee Bank



### Marketing Implementor



### Contractor Manager

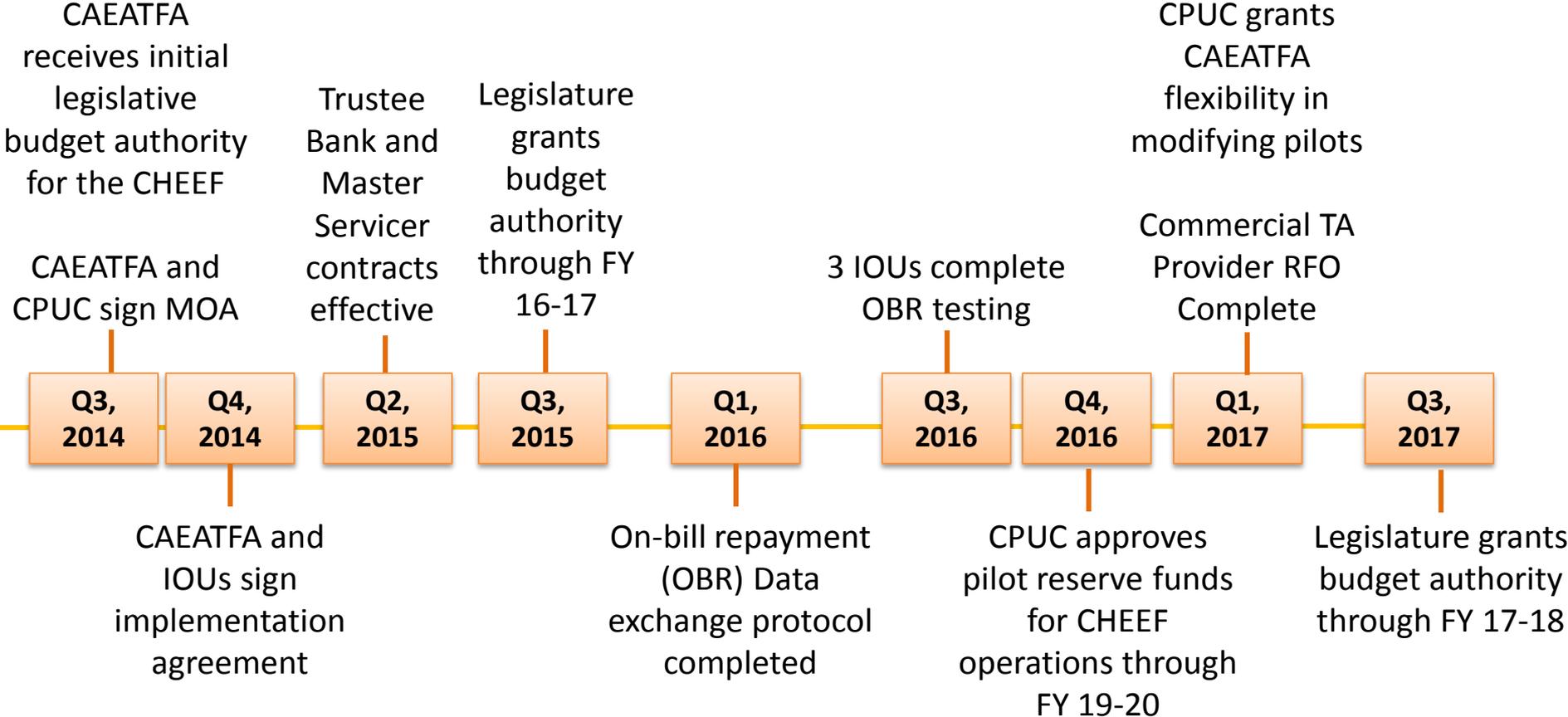
### Energy Retrofit Contractors



### Private Capital Providers



# CHEEF infrastructure development and major milestones



# Considerable challenges have pushed out pilot development

## Narrow impact to the market

- Financing removes a hurdle, but doesn't create demand for efficiency
- Strict eligibility requirements mean small scope of projects qualify
- Low margins for finance entities; heavy lift for short term program
- Segregated loss reserve accounts by IOU territory diminish value of credit enhancement

## Highly prescriptive CPUC Decision means operational hurdles

- Significant paperwork burden for participants
- Complex and costly eligibility checks for participants and for CAEATFA
- 4 separate lists of eligible measures based on IOU jurisdiction while lenders operate statewide

## Resource and capacity issues

- Insufficient staffing levels, LT staff and turnover, and classifications not high enough for program complexity
- CAEATFA required to become expert on areas outside of financing such as energy efficiency measures across industries, IOU billing systems and operations, data transfer and exchanges, energy savings determinations
- Lack of budget for IT solutions to operational challenges

## Complex partner and stakeholder coordination

- IOUs are highly regulated entities with significant legal constraints
- Financial entities have regulatory and resource constraints
- CAEATFA and CPUC operate through separate administrative procedures on separate timelines
- 4 different IOU billing systems and delinquency timelines

# CAEATFA has responded to these challenges by working to

## Broaden relevance to the market

- Advocated to CPUC to decouple measure eligibility from requirements of IOU rebate and incentive programs, for financing to code projects, for inclusion of energy service agreements, for inclusion of distributed generation projects (without credit enhancement) to provide broader market relevance
- Advocated to CPUC for ability to create statewide loss reserve accounts for lenders
- Consolidated small business pilots to draw from a single credit enhancement pool

## Reduce and remove operational hurdles

- Exploring options for sharing of energy savings data that does not involve burdensome forms
- Exploring technology, deployed through marketing or contractor manager firm to facilitate contractor promotion of REEL and remove some of paperwork hurdles
- Consolidated forms and exploring removing as many data requirements as we can
- Advocated for a meter-based energy savings measurement of pilots to reduce upfront data burden

## Procure resources and increase capacity

- Developed staff expertise on energy efficiency measures, IOU billing systems, data exchanges, etc
- Sought and received authority for additional staff and upgraded classifications
- Brought on technical consultants and coordinated with IOUs to receive continued TA from HB&C

## Accommodate stakeholder and partner legal processes and concerns

- Coordinated with Energy Division staff to secure CPUC authorization on budget and program modifications
- Devised Operational Reserve Fund and exploring mechanisms for secure flow of funds to lenders for on-bill programs

# REEL provides access to financing terms that customers would otherwise not obtain

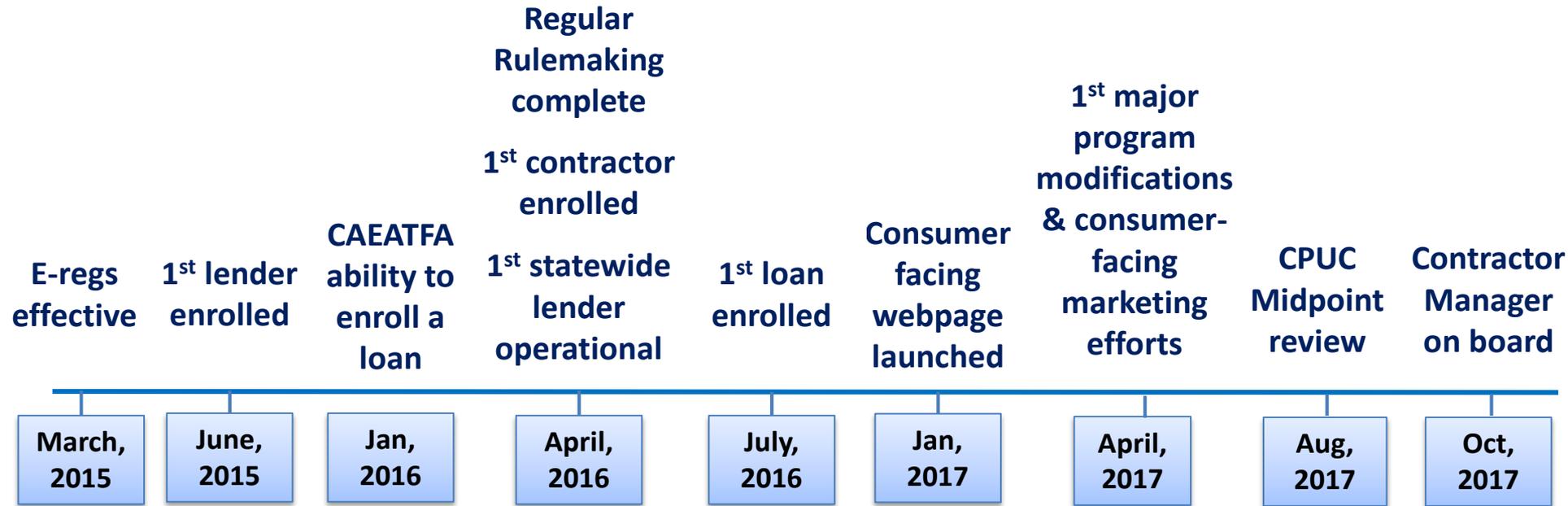
- Unsecured loans
- No lien on property; home equity not necessary
- Up to 15 year terms mean low monthly payments
- Better rates than other unsecured products

A CalCoast borrower with a 600 FICO score taking out a \$10,000 5-year loan would save **\$3,668** in interest.

## Comparison of lender's REEL product vs. their standard, unsecured loan

				
<b>Credit expansion</b>	FICO min reduced from 660 to 640	FICO min = REEL min of 580	FICO min remained at 600	FICO min = REEL min of 580
<b>Rate reduction</b>	640 bp (for FICO of 640)	668 bp (for FICO of 580)	1200 bp (for FICO of 600)	1050 bp (For FICO of 580)
<b>Term extension</b> (means lower monthly payments)	Increased from 1 year to up to 15	Increased from 5 years to up to 15	Increased from 5 years to up to 15	Increased from 5 years to up to 15
<b>Max amount available to borrow</b>	Increased from \$10k to \$50k	Increased from \$20k to \$50k	Increased from \$20k to \$50k	Increased from \$15k to \$50k

# REEL timeline and current metrics



## Participants:

- 4 active lenders
- 131 contractors

## Loan activity:

- 30 enrolled loans
- \$546k funded
- 11 rebated projects
- 10 year average term

## Benefits to Borrowers:\*

- 6.86% - average rate
- \$19,752 – total interest saved\*\*
- \$13,075 – reduced payments each month†
- \$422 - Average monthly payment reduction

\*Compared to credit union's conventional product    \*\*Total of interest saved over life of loan for 11 loans with terms of 5 years or less    † All 30 loans reduced monthly payments compared to conventional product

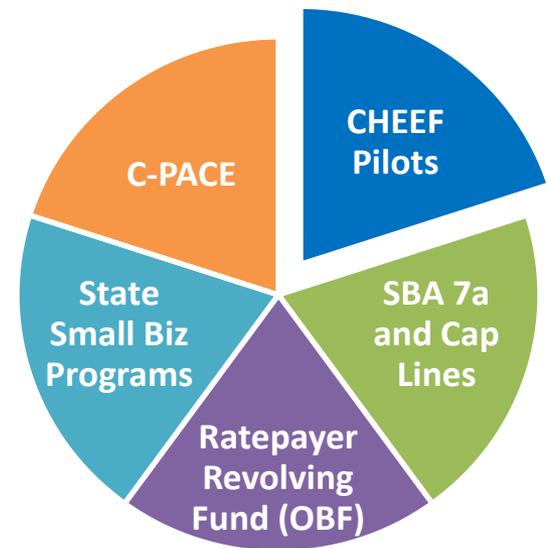


# CHEEF small business programs will also fill a financing gap

- Most lenders participating in guarantee programs require owner equity injection
  - business owners don't want to expend scarce capital on energy efficiency
- Utility financing (OBF) requires 5 year payback and has other restrictions
- C-PACE is not practical for smaller transactions or tenant occupants

## We expect to see CHEEF projects where:

- 100% financing is needed
- Project costs more than \$100,000 (OBF limit)
- Customer wants a service agreement
- Borrower is non-profit (less access to loan guarantee programs)
- Project is “custom” per IOU rules and borrower wants to realize savings now rather than wait for IOU approval
- Customers are replacing broken equipment (small ticket)
- Project has a long payback period; won't be bill-neutral in a 5 year period



# CHEEF team and consultants currently working on small business program research and design

## Program design under development covers:

Contractor requirements	Project eligibility	Measure eligibility	QA and QC	Data	Enrollment processes
Operations and data transmission	Finance entity eligibility	Credit enhancement structure	Financial product eligibility	Borrower eligibility	Underwriting guidelines

## Commercial Program Development timeline:



# CHEEF will establish a model for non-mortgage based financing for affordable Multi-Family properties

## Multi-family properties have special challenges in completing energy efficiency upgrades

- complex ownership structures
- multiple sources of capital mean its difficult to take on new debt
- tenant-owner split incentive

## Key Program Design elements:

Single lender (under consideration)

Credit enhancement in form of loss reserve for first \$1MM in project costs

Technical assistance to facilitate borrower decision-making

Loans, leases, service agreements

Leverage IOU rebates and incentives to lower project cost

On and off bill repayment options

# Affordable Multi-family program to launch in late 2018

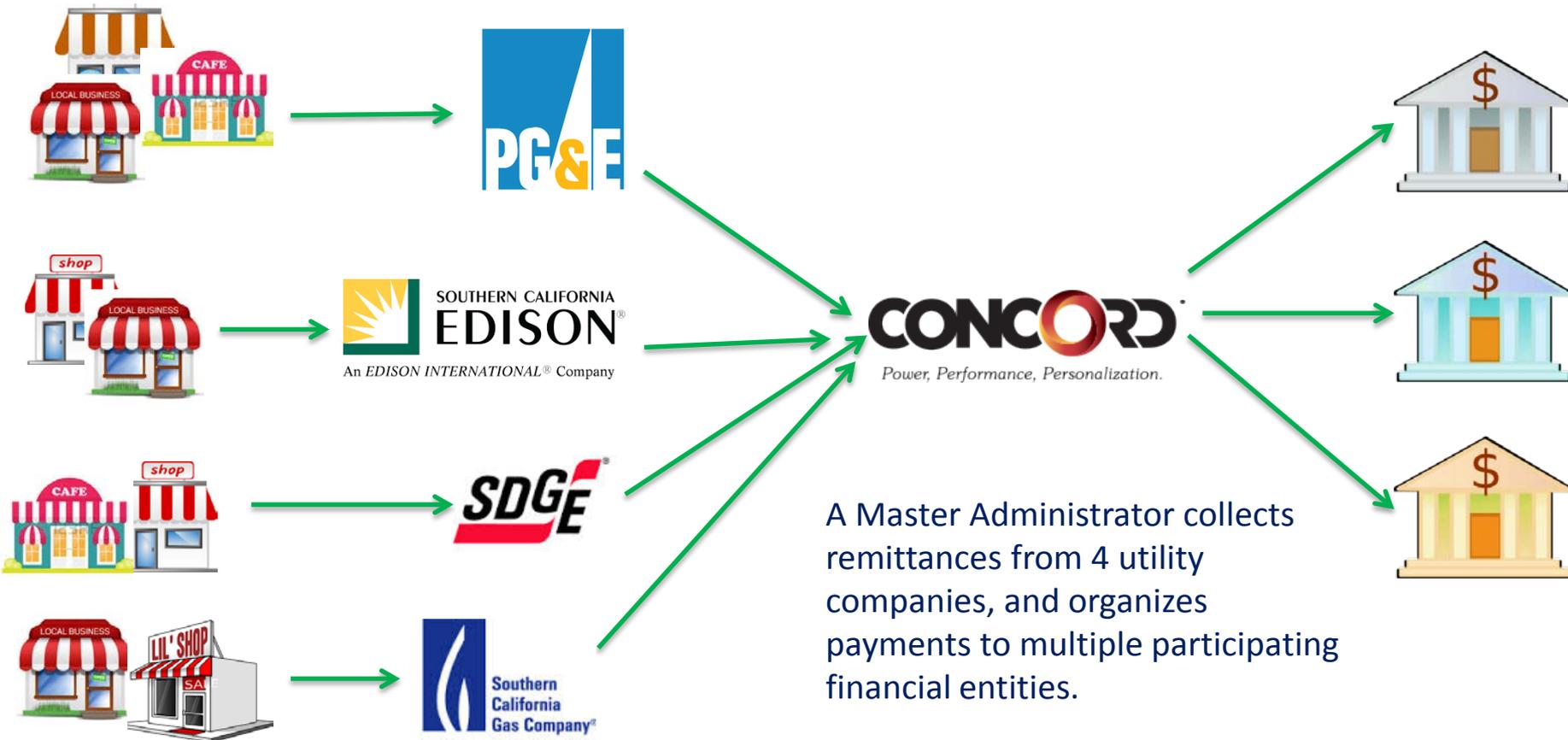
## CHEEF financing will fill a need for:

- LIHTC properties that are outside the tax equity investor ownership period
- Properties that are mid-cycle in mortgage financing
  - Properties at end of cycle are more likely to be able to use a first mortgage refinance to fund energy efficiency improvements
- High energy consumption properties



# CHEEF seeks to offer first Open Market OBR platform in country

A variety of finance entities, offering variety of products can enter into transactions with customers, and then allow those customers to repay their loans on the bill



A Master Administrator collects remittances from 4 utility companies, and organizes payments to multiple participating financial entities.

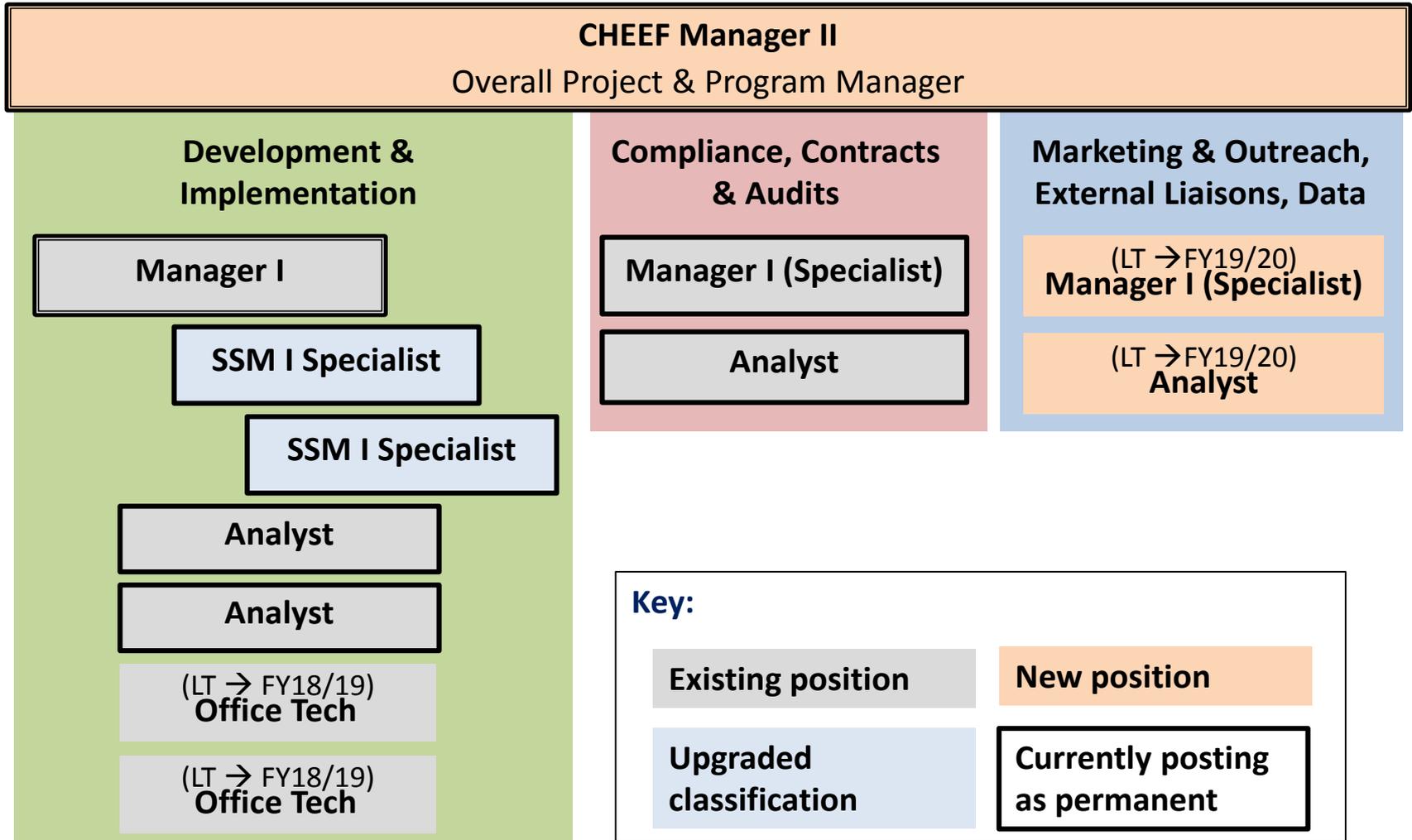
# Why on-bill repayment?

- Convenience for borrowers
- Low default rates for finance entities
- Possibility of disconnection for non-payment of financing charges
  - Commercial only, not for residential or critical buildings
- Potentially attractive mechanism by which public buildings can undertake energy upgrades given budget constraints
- Utility on-bill financing has had some success; CPUC desire to test feasibility of private capital, on-bill repayment

## Challenges with on-bill program design:

- Utility legal issues with collecting and processing payments
- Securing flow of funds from utility to any potential participating finance entity
- Four unique utility billing systems and payment timelines versus finance entity need for statewide consistency
- First program in country to attempt a front-end, open-market on bill program
  - Existing programs have one lender or sell loans on the back end

# CHEEF staffing to implement programs

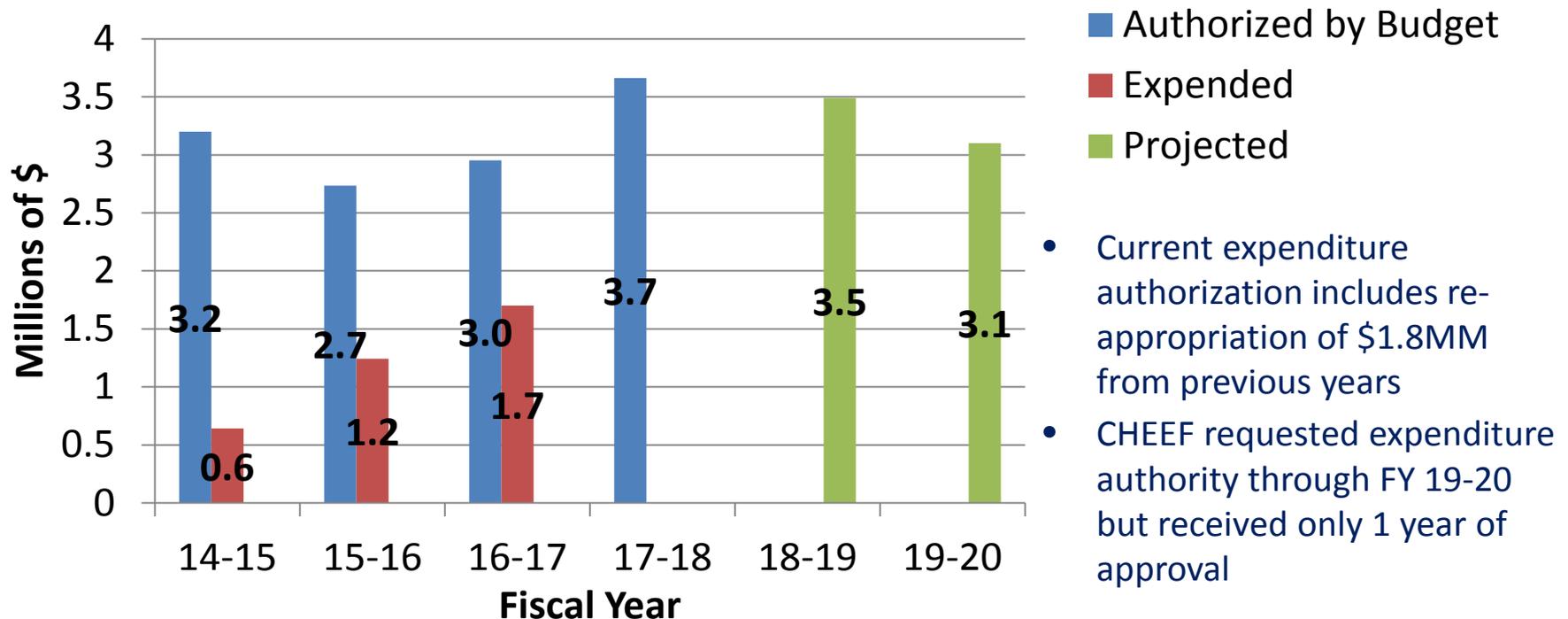


# CHEEF funding level and expenditures through March 31, 2017

Item	Allocated	Expended/ Encumbered	Balance
<b>CHEEF Administration</b>	\$ 13,360,000	\$ 2,740,334	\$ 10,619,666
Start-up, administrative, direct implementation, contracting costs	\$ 5,000,000	\$ 2,740,334	\$ 2,259,666
Release of funds approved by CPUC Rulemaking 13-11-005	\$ 8,360,000	\$ -	\$ 8,360,000
<b>Marketing, Education, Outreach (MEO)</b>	\$ 10,000,000	\$ 320,979	\$ 9,679,021
Statewide MEO plan	\$ 8,000,000	(TBD)	\$ 8,000,000
CAEATFA outreach & training to financial institutions and contractors	\$ 2,000,000	\$ 320,979	\$ 1,679,021
<b>Residential Pilots</b>	\$ 28,900,000	\$ 19,112	\$ 28,880,888
<b>Small Business Pilots</b>	\$ 14,000,000	\$ -	\$ 14,000,000
<b>Information Technology (IT) Funding to IOUs</b>	\$ 8,000,000	(TBD)	\$ 8,000,000
<b>CHEEF Pilot Reserve Remaining</b>	\$ 984,931	\$ -	\$ 984,931
<b>TOTAL</b>	<b>\$ 75,244,931</b>	<b>\$ 3,080,425</b>	<b>\$ 72,164,506</b>

# Expenditures will rise as pilots are launched and implemented

## CAEATFA's CHEEF budget authority, expenditures and current authorizations



# We see significant opportunities for the CHEEF pilots over the next year

*We have been looking for consumer-friendly energy loans for 5-6 years now... so when we heard about the REEL program, we got on board because it is a great fit for us. We are always excited to bring new products that bring value to our members.*

**REEL Participating Lender**

**\$50 Billion in retrofits needed for CA's buildings**

**Streamlining operations and eligibility requirements**

*REEL has no fees and the interest rates are better than Cal First or HERO. I would like to get away from using these other financing products because I can save my customers \$1,500 to \$2,000 in fees!*

**REEL Participating Contractor**

**Financing to code**

**Testing a "finance-only" path**





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**Stakeholder website:**

**[www.thecheef.com](http://www.thecheef.com)**



# APPENDIX



# Electric and Gas Utility Service Territories

